

The Afghanistan Engineering Support Program assembled this quarterly report. It is an approved, official USAID document. Budget information contained herein is for illustrative purposes. All policy, personal, financial, and procurement sensitive information has been removed. Additional information on the report can be obtained from Firouz Rooyani, Tetra Tech Sr. VP International Operations, (703) 387-2151.



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**AFGHANISTAN**

# ENGINEERING SUPPORT PROGRAM

FINAL Q2 QUARTERLY REPORT FY2013



Submitted: April 06, 2013

This publication was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech, Inc.





[REDACTED]

[REDACTED]

USAID – Office of Economic Growth and Infrastructure (OEGI)  
Café Compound  
U.S. Embassy  
Great Massoud Road Kabul, Afghanistan

**Re: Contract No. EDH-I-00-08-00027-00, Task Order No. 1; Afghanistan Engineering Support Program; Final Q2 Quarterly Report FY2013**

Dear [REDACTED]

Per section C.5, “Deliverables,” paragraph G of the above referenced contract, we are submitting the Final Second Quarterly Report for the 2013 Fiscal Year. The report covers the period of January 1, 2013 through March 31, 2013.

Please feel free to contact me with any questions or comments.

Respectfully,

[REDACTED]

[REDACTED]

Chief of Party  
Afghanistan Engineering Support Program (AESP)  
Tetra Tech, Inc.

# AFGHANISTAN ENGINEERING SUPPORT PROGRAM

FINAL Q2 QUARTERLY REPORT FY2013

April 06, 2013

## **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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Prepared for:



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Tetra Tech, Inc.  
Afghanistan Engineering Support Program

## Appendix

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Appendix A    Work Order Status

## 1.0 Executive Summary

This is the Fiscal Year 2013 Second Quarter (FY2013 Q2) report submitted under Contract No. EDH-I-00-08-00027-00, Task Order No. 1; Afghanistan Engineering Support Program (AESP). The reporting period is January 1, 2013 through March 31, 2013.

Tetra Tech AESP provides technical assistance to the USAID Afghanistan Office of Economic Growth and Infrastructure (OEGI) with quick and reliable engineering expertise through a Kabul-based core of expatriate architectural and engineering professionals leading a competent staff of local Afghan engineers and technical staff. In addition to the in-country resources, Tetra Tech AESP is backed by highly qualified US-based staff, known as “reachback”, which is utilized on an as-needed basis. Tetra Tech AESP provides planning, design, technical and oversight support contributing to capacity building, mentoring, and collaboration/coordination with USAID stakeholders. The period of performance for this contract is five years from a notice to proceed (NTP) date of November 14, 2009.

During FY2013 Q2 Tetra Tech AESP staff worked on three administrative work orders, thirteen active and four pending long term work orders. Administrative work orders are defined as tasks requiring a total level of effort (LOE) less than or equal to 18 business days (144 work hours). Long term work orders are defined as activities requiring a total LOE exceeding 18 business days. The majority of the work this quarter supported the energy sector.



**Middle Management Team**

FY2013 Q2 has been characterized by continued support of USAID energy projects, which included field inspection and data collection for WO-LT-0059 relay settings, and finalization of technical procurement documents for the Afghanistan public utility provider Da Afghanistan Breshna Sherkot (DABS) transmission line and substation construction project under WO-LT-0048. In the transportation sector, Tetra Tech supported WO-LT-0067 Gardez-Khost Road construction project through the use of existing precast reinforced concrete materials, provided scheduling assistance for the construction contractor Mashriq Engineering Construction Company (MECC) and hosted an “Off-Site” team building session at the Tetra Tech AESP Villa. Construction administration services at Sardar Kabuli Girls High School (SKGHS) for site layout, grading, and the utilities continued. Media Assistance, WO-LT-0065, in this reporting period included preparing videos for Faizabad Airport and the Gardez-Khost Road construction project. Under the Training and Support work order, WO-LT-0066, an initial program for project management training was developed and shared with USAID, which has led to a discussion of a more ambitious plan for capacity building within USAID.

Tetra Tech AESP stepped up capacity building training opportunities for local national (LN) staff. Three LN engineers attended writing training and three staff members attended safety training in the month of January 2013. Three LN engineers attended construction quality control (CQM) training and four individuals attended construction safety and health training in the month of February 2013. English writing coaching was offered to all interested LN staff. Currently eight staff members participate in the conversational English class held twice a week.

Tetra Tech AESP efforts to achieve gender-equitable staffing took a giant step forward in the quarter. One of the former female Kabul University Civil Engineering student interns was hired and began work as a junior civil engineer. Four new female university engineering students were hired as 2013 interns.

Prepared for:



In FY2013 Q2 Tetra Tech AESP continued the process of encouraging LN staff to take on additional responsibilities running the Tetra Tech AESP business. [REDACTED] continued to grow as Deputy Chief of Party (DCOP). [REDACTED] was promoted to Technical Support Manager (TSM) with responsibility for LN training programs and the new Afghan Public Protective Force (APPF) contract. [REDACTED] added Administration Manager to his Human Resources responsibilities. Lastly, [REDACTED] stepped up to a more autonomous role as Information

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Afghanistan Engineering Support Program

Technology (IT) Manager, reporting to the DCOP.

As described above, in FY2013 Q2 considerable support continued to be extended to the USAID energy sector and increased formal training, promotions, individual responsibility growth opportunities and female gender equality advances were provided to Tetra Tech AESP LN technical staff. Tetra Tech AESP will continue capacity building and gender equality support to the USAID mission in Afghanistan through FY2013 Q3 and beyond.

## 2.0 Program Staffing

The Tetra Tech AESP continues to maintain qualified expatriate and LN staff to support a varied set of work orders. This quarter saw the migration of management responsibilities from expatriate staff to LN staff. The migration of responsibilities continued through the entire quarter. The expatriate filling the Communication Specialist position demobilized which initiated the transfer of duties overseen by the position to skilled LN staff.

A complete listing of expatriate and LN staff is summarized in the sections that follow.

### 2.1 Expatriate Staffing

The program maintained an expatriate staff of 17 during FY2013 Q2 (Table 2.1).

Table 2.1 Expatriate Staffing and Deployment FY2013 Q2			
Employee Name	Position	Afghanistan Arrival	Afghanistan Departure
	Finance Manager	11/18/09	N/A
	Sr. Quality Assurance Inspector/Sr. Construction Mgr.	12/3/10	N/A
	Vertical Structures Electrical Engineer	4/19/11	N/A
	Deputy Chief of Party	4/19/11	N/A
	MIS Manager	06/16/11	N/A
	Energy Lead	07/4/11	03/26/13
	Chief of Party	07/14/11	N/A
	Communications Specialist	08/18/11	02/20/2013
	Sr. Energy Specialist	01/13/12	01/12/2013
	Water/Sanitation Lead	04/09/12	N/A
	Sr. Project Manager	06/08/10	N/A
	Jr. Civil Engineer	04/09/12	N/A
	Administrative Manager	07/21/12	02/17/2013
	Technical Services Manager	07/21/12	N/A
	Jr. Civil Engineer	07/21/12	N/A
	Contract/Procurement Manager	10/03/12	N/A
	Transportation Lead	10/12/12	N/A
	Energy Lead	03/19/13	N/A

### 2.2 Expatriate Staffing Changes

During the month of January, two expatriates demobilized [REDACTED], Senior Energy Specialist, and [REDACTED], Administrative Manager. A search for qualified candidates was ongoing during the quarter.

[REDACTED] initially brought on to support the Contract and Procurement department, was approved in January to fill the vacate Contract/Procurement Manager position.

[REDACTED], Communication Specialist, demobilized in February. Two of our talented LN staff have been tasked with managing the communication component of the Task Order going forward.

[REDACTED] handed over his responsibilities of Energy Lead to [REDACTED] during the month of March. [REDACTED] demobilized in late March, as his contract ended.

### 2.3 Local National Staffing

The Tetra Tech AESP continues to maintain a staff of 35+ qualified LN employees.

The Tetra Tech AESP woman's internship program successfully finished its first year. Its first year completion coincided with the vacancy of a civil engineer position. Interviews were held for the open

position, all four of the 2012 internship participants participated. After difficult deliberation, it was determined to offer the position to [REDACTED]. She graciously accepted; refer to Section 7.0 for her account of her first three months with the Tetra Tech AESP.

Table 2.2 presents the LN staff during the quarter.

Table 2.2 Local National Staffing			
Employee Name	Position	Start Date	End Date
[REDACTED]	Government Liaison	12/2/09	N/A
[REDACTED]	Facilities Maintenance	3/20/10	N/A
[REDACTED]	Facilities Manager	3/20/10	N/A
[REDACTED]	Kitchen Helper/Jr. Cook	3/20/10	N/A
[REDACTED]	Cleaner	3/20/10	N/A
[REDACTED]	Cleaner	3/20/10	N/A
[REDACTED]	Laundry	3/20/10	N/A
[REDACTED]	Cleaner	3/20/10	N/A
[REDACTED]	Accountant	3/23/10	N/A
[REDACTED]	Internal Auditor	3/27/10	N/A
[REDACTED]	IT Manager	4/15/10	N/A
[REDACTED]	IT Assistant	4/20/10	N/A
[REDACTED]	HR Manager	7/3/10	N/A
[REDACTED]	Kitchen Helper	8/3/10	N/A
[REDACTED]	Kitchen Helper	8/3/10	N/A
[REDACTED]	Administrative Assistant	9/13/10	N/A
[REDACTED]	Administrative Assistant	10/1/10	N/A
[REDACTED]	QA Monitor/USACC	10/2/10	N/A
[REDACTED]	QA Monitor/USACC	10/2/10	N/A
[REDACTED]	LNDCOP	10/9/10	N/A
[REDACTED]	Senior Administrative Assistant	10/24/10	N/A
[REDACTED]	Structural Engineer – Junior Level	11/29/10	N/A
[REDACTED]	Civil Engineer – Mid Level	12/7/10	N/A
[REDACTED]	QA Monitor/USACC	12/11/10	N/A
[REDACTED]	Laundry	3/9/11	N/A
[REDACTED]	Electrical Engineer – Mid Level	3/15/11	N/A
[REDACTED]	Cost Estimator – Senior	4/16/11	N/A
[REDACTED]	Cleaner	6/1/11	N/A
[REDACTED]	Contracts Assistant/Buyer	6/12/11	N/A
[REDACTED]	Civil Engineer Junior Level	10/29/11	N/A
[REDACTED]	Intern	1/23/12	01/11/13
[REDACTED]	Intern	1/23/12	01/11/13
[REDACTED]	Civil Engineer Junior Level	1/24/12	N/A
[REDACTED]	Intern	1/24/12	01/11/13
[REDACTED]	Buyer	6/9/12	N/A
[REDACTED]	Technical Writer/GIS	3/25/12	N/A
[REDACTED]	Architect	8/25/12	N/A
[REDACTED]	Cook	9/3/12	N/A
[REDACTED]	Cleaner	10/01/12	N/A
[REDACTED]	Female Searcher	10/10/12	N/A
[REDACTED]	Electrical Engineer – Junior Level	10/10/12	N/A
[REDACTED]	Electrical Engineer – Mid Level	11/01/12	N/A
[REDACTED]	Intern	1/12/13	N/A
[REDACTED]	Intern	1/12/13	N/A
[REDACTED]	Intern	1/12/13	N/A
[REDACTED]	Intern	1/12/13	N/A

## 2.4 Local National Staff Changes

Fiscal Year 2013 Q2 saw an additional performance indicator fulfilled for the Task Order. Expatriate responsibilities were delegated to the talented and experienced Tetra Tech AESP's LN staff for day to day running of the program. [REDACTED] continued to grow as DCOP. [REDACTED] was promoted to TSM with responsibility for LN training programs and the new APPF contract. [REDACTED] added Administration Manager to his Human Resources responsibilities and [REDACTED] stepped up to a more autonomous role as IT Manager, reporting to the DCOP.



### **3.0 Contract/Task Order**

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#### **3.1 Contract/Task Order Deliverables FY2013 Q2**

This quarterly report is the second Contract/Task Order deliverable of FY 2013.

## 4.0 Work Orders

### 4.1 Sector Activities

The following table is a summary of the active work orders per sector during FY2013 Q2.

Table 4.1 Active FY2013 Q2 Work Orders		
Sector	Work Order Type	
	Administrative Work Orders	Long Term Work Orders
<b>Energy</b>	0	5
<b>Multi-Disciplinary</b>	0	1
<b>Water Resources</b>	0	0
<b>Transportation</b>	0	3
<b>Vertical Structures</b>	0	0
<b>Technical Services and Support</b>	3	4
The value of Long Term Work Orders initiated in FY2013 Q2: [REDACTED]		

The following sections describe the activities performed in each sector during FY2013 Q2 under this Task Order.

#### 4.1.1 Energy

Tetra Tech AESP continued work on a number of long term work orders as assigned by USAID to meet the objectives outlined in the Department of Defense *Report on Progress Toward Security and Stability in Afghanistan* (October 2011). The work product/studies support development of reliable electrical transmission and generation systems within Afghanistan. Existing long term work orders are described as follows:

##### 4.1.1.1 WO-LT-0048 Engineering Study for 220kV Transmission Line from Dasht-E-Barchi to Kandahar

*WO-LT-0048 AMD 3 Transmission Line and Substations from Arghandi to Ghazni City*

USAID gave notice on September 13, 2012 to proceed with Amendment (AMD) 3 to provide a technical section (Volume 2) for a 220kV transmission line from Arghandi to Qarabagh and substations located at Sayedabad, Ghazni City, and Qarabagh. This was subsequently changed to have the transmission line end at Ghazni City.

At the time of this report, Tetra Tech AESP submitted technical section (Volume 2) AMD 3-REV 7 for review and comments from USAID. Tetra Tech AESP assisted DABS in completing the Bill of Quantities (BoQ) and Volumes 1 and 3. On March 4, 2013, DABS delivered to USAID the first draft of Volumes 1 and 3 for review. On March 13, 2013, a meeting between DABS and USAID (with Tetra Tech AESP present) was held as the next step to combine Volumes 1, 2 and 3 into a complete DABS Request for Proposal (RFP) package for an engineering, procurement, and construction (EPC) contract.

The current scheduled end date for the work is May 3, 2013. With the release of the RFP by DABS, the next step would be to assist in bid evaluation.

#### *WO-LT-0048 AMD 4 Transmission Line and Substations from Ghazni City to Qalat*

USAID gave notice on September 24, 2012 to proceed with Amendment 4 to provide the technical section (Volume 2) for a 220kV transmission line from Qarabagh to Qalat. This was subsequently changed to run the transmission line from Ghazni City to Qalat.

At the time of this report, technical section (Volume 2) AMD 4-REV 0 is on hold. The original schedule was to submit the technical section a few weeks after the acceptance of AMD 3-REV 7. Tetra Tech AESP will support USAID's effort to assist DABS in the completion of the BoQ and Volumes 1 and 3.

#### **4.1.1.2 WO-LT-0054 Reactive Power Compensation for Pul-e-Khumri to Chimtala**

Tetra Tech AESP performed a study using Power System Simulator for Engineering (PSS/E) and created a partial design package for the Reactive Power Compensation (RPC) for the Afghanistan Northeast Power system (NEPS) that would permit the Pul-e-Khumri to Chimtala 220kV transmission line to carry the optimum amount of power approaching the conductor's thermal limit of approximately 450MW. The design package also included installation of an additional 160MVA 220/110kV autotransformer at the Chimtala substation. USAID gave notice on June 4, 2012 to proceed with Amendment 1 to perform the following: 1) add RPC to points along the Dasht-e-Barchi to Kandahar East transmission line, and 2) provide additional limited assistance to DABS. Work continued through the fourth quarter. The final report was submitted on September 2, 2012. The Amendment 1 report was submitted on September 16, 2012.

This work order was open during the first part of Q1 to allow ample time for comments and/or revisions to the final report submitted on September 16, 2012. The work order was eventually when USAID accepted final report.

#### **4.1.1.3 WO-LT-0059 NEPS System Protective Relay Coordination Studies**

Notice to proceed for this work order was given on December 18, 2012. This project will provide relay settings for the primary substation protective relays at substations controlled by the national load control center (NLCC) at Tarakhil thermal power plant (TPP). High voltage and medium voltage system relays will be studied and proposed relay settings will be determined by Tetra Tech AESP reachback staff. Medium voltage line feeders will be studied by staff in Kabul.

Initial kick-off meetings were held with USAID (12/27/2012) and DABS (12/29/2012). Letters of cooperation and access were signed by DABS and Kabul Electrical Department (KED) on January 2, 2013. A tentative schedule of activities was distributed to DABS on January 2, 2013. This work order is well into the information gathering (of existing relay settings) stage. Reachback is beginning to build the computer models of the electrical power distribution system using the existing relay settings information.

#### **4.1.1.4 WO-LT-0063 Salang Tunnel Substation Technical Sections**

The objective of this work order is to develop technical documents to tap the existing 220kV transmission line (T/L) between Pul-e-Khumri Substation (SS) and Chimtala SS to provide electrical power to a new 220/20kV SS located south of the Salang Tunnel, Baghlan Province, Afghanistan. The most notable customer served from this SS will be the Afghan Ministry of Public Works (MoPW) which owns and operates the tunnel.

The technical documents will contain sufficient detail for an EPC firm to continue the design and installation of the work. It is our understanding that USAID will deliver the technical documents to DABS. DABS will then solicit bids for the work and select an EPC contractor. This process is described as "on-budget".

NTP was granted by USAID on October 22, 2012. NTP to locate the SS to its final agreed location in Amendment No. 1 was granted by USAID on November 24, 2012. Final deliverables for the original single circuit design were delivered to USAID on January 28, 2013. Feedback received from USAID on March 2, 2013 was that this SS needed to be redesigned to include more redundancy. Contract preparation and bidding assistance services will be performed once site layout and redesign is approved by USAID.

#### **4.1.1.5 WO-LT-0068 Nangahar & Hydro - Load & System Studies**

Tetra Tech AESP was tasked to provide studies to properly size a primary SS near Hisarshabi Industrial Park (HIP) in Rodat District, Nangahar Province, Afghanistan.

A final report was submitted on December 31, 2012 for review and comments. Work order end date was on January 5, 2013. Two time extensions were submitted and approved to push the end date to May 6, 2013 to allow for additional comment and response exchanges between USAID and Tetra Tech AESP. This work order was closed in February.

### **4.1.2 Multi-Disciplinary**

A summary of work performed during the quarter by the water and sanitation sector included construction administration services, document review, project meeting attendance, and design input on a utilities project.

#### **4.1.2.1 WO-LT-0006 Sardar Kabuli Girls High School Utility Construction Documents**

Construction has continued at the USAID funded Sardar Kabuli Girls High School (SKGHS) Utility Construction contract. Construction administration services for grading and installation of utility facilities were supported. Tetra Tech AESP engineering staff assisted at meetings, reviewed shop-drawing submittals and provided onsite quality assurance (QA) oversight for construction and technical responses for request for information (RFI) from the construction contractor.

### **4.1.3 Water Resources**

No new work orders were approved for this sector during the second quarter. The water resources sector when utilized provides technical support, operations and maintenance cost estimates, document review, and design input to USAID.

### **4.1.4 Transportation**

The following summary provides an overview of the work performed during the quarter by the transportation sector. A majority of the work performed included team building, scheduling support, and value engineering.

#### **4.1.4.1 WO-LT-0009 Amendment 1 Provincial Reconstruction Team (PRT) Support – Khost Bridge Final Design**

For a location in Khost Province, Tetra Tech AESP developed conceptual documents and BOQ detailing four different bridge type designs. The four designs included box culverts; flat slab bridge superstructure supported on solid piers and abutments, reinforced concrete deck beam with reinforced concrete deck slab supported on solid piers and abutments, and corrugated metal pipe arches. The USAID/Khost PRT determined that the reinforced concrete design was the most appropriate design for the crossing at Sagai and met the needs of the Khost PRT and Khost Province. The final design was submitted.

During the quarter, the work order remained open awaiting instructions from USAID.

#### **4.1.4.2 WO-LT-0009 Amendment 2 PRT Support – Bamyan Dam Sites Pre-Feasibility Studies**

Tetra Tech AESP completed the conceptual design for the implementation of a low-head diversion dam in the Kalu Valley, Bamyan Province including preliminary design drawings; geotechnical and geologic data; stability and seepage analysis; hydrology and hydraulics analysis; conceptual engineering designs for the dam, penstock, and powerhouse; and cost estimation.

During the quarter, the work order remained open awaiting instructions from USAID.

#### **4.1.4.3 WO-LT-0067 Gardez to Khost Road Value Engineering**

Tetra Tech AESP provided USAID with plans for the installation of precast structures along Gardez to Khost (GK) Road to utilize existing materials and shorten construction time. The plan, utilized as a basis for a contract modification with MECC, was developed by Tetra Tech AESP's local engineering staff.

Tetra Tech AESP also provided a model schedule for the construction of Bridge 10. The program is to provide the road contractor a base plan for the construction of the bridge. The base plan may also be used by USAID as a basis for review for any proposed schedule when approved.

Tetra Tech AESP facilitated a workshop on March 7, 2013 between USAID, MECC and International Relief & Development to open dialog, identify elements of the project that could work better and assist the team in developing systems that are more efficient. Issues related to scheduling, BOQ, invoicing and quality assurance/quality control were discussed and plans were put in place to improve team functioning in all areas. As a follow up to the workshop, Tetra Tech AESP submitted a draft summary report of the workshop. The summary report is currently under review at USAID. An amendment to the work order was submitted to USAID on March 27, 2013 to provide QA and capacity building services to MECC with project scheduling.

### **4.1.5 Vertical Structures**

No new work orders were approved for this sector during the second quarter. The vertical structures sector when utilized provides technical support, operations and maintenance cost estimates, document review, and design input to USAID.

### **4.1.6 Technical Support and Services**

A summary of work performed during the first quarter by technical support and services sector included claims assistance to USAID Office of Acquisition & Assistance (OAA), continuance of the women's internship program, media assistance, and training support.

#### **4.1.6.1 WO-LT-0033 AMD1, AMD 2 and AMD 3 USAID/OAA Claims Assistance**

Tetra Tech AESP provided OAA office claims assistance.

#### **4.1.6.2 WO-LT-0042 Afghan Women Internship Program**

The four female Civil Engineering students from Kabul University completed their 2012 Tetra Tech AESP internship program at the beginning of January. Four new interns were selected for the 2013 Tetra Tech AESP internship program which began on January 12, 2013. Three students are from Kabul University and one is from the Polytechnic University. Their respective educational backgrounds and experiences include structural engineering and construction, civil engineering, water resources engineering, and architectural engineering.

The interns have begun by spending time in each of the Tetra Tech AESP departments, transportation, water resources, and electrical engineering, to become acquainted with Tetra Tech AESP engineers and projects. The goal of this in-depth introduction was for each intern to identify potential mentors in each of their respective fields of engineering. Specifically, the interns were asked to participate on some basic engineering work for WOLT-0067 GK Road and the electrical work orders. They have also begun introductory or intermediate AutoCAD Civil 3D training, depending on each intern's prior experience, with Tetra Tech design engineers. Other lessons thus far have included technical writing skills and document control procedures. In February, the interns also spent a half day at USAID for an introductory shadowing experience to meet with USAID engineers and to learn about the USAID working environment and roles of engineers there.

The interns took a three week break between end of February and beginning of March to complete exams delayed by the University from the previous fall semester. They will return in the middle of March and continue their training.

#### **4.1.6.3 WO-LT-0065 Media Assistance**

Tetra Tech AESP continued to support the efforts of USAID to promote the good works they support in and around Kabul.

A briefing on the Tetra Tech AESP program was presented during the weekly OEGI meeting held on February 6, 2013. The presenters were Haseeb Rasouli, DCOP, Hossai Popalzai, Architect, and Shekib Safai, Civil Engineer. Each highlighted a work order and explained the services and expertise available to USAID. The ten-minute presentation was well received by the group.

During the quarter work commenced on two videos. The GK Road video was slated for use as a public announcement to reassure villagers along the road that work will begin again in the spring. Work began on an informational video about the importance of Faizabad Airport and USAID's support. This was all done with the editing and oversight of USAID Development Outreach and Communications (DOC).

#### **4.1.6.4 WO-LT-0066 Training and Support**

The objective of this work order is to support USAID's efforts in building project management capabilities and leadership skills of USAID LN engineering staff in preparation of the "Transformational Decade" (2014-2024) in Afghanistan. Tetra Tech AESP is contracted to provide the following;

- Overview of the discipline of project management to USAID local engineering staff.
- Overview of project management certification options.

A Tetra Tech Technical Lead / Project Manager and one LN Project Manager will provide project management training to USAID LN engineering staff in Kabul. Training will consist of a general overview of accepted project management concepts and techniques as recognized by the Project Management Institute (PMI). Tetra Tech will also provide up to twelve additional training sessions to aid in PMI certification exam preparation. Training to be provided to 20 LN professional engineering personnel with USAID as identified and approved by the AESP COR or his designated representative.

## **4.2 Sector Activities Summary**

Fiscal Year 2013 Q2 work order activity under this Task Order included work on three Administrative Work Orders and twelve Long Term Work Orders, and three Pending Long Term Work Orders. The following is a breakdown of the Work Orders by sector is shown in Table 4.2.

<b>Table 4.2</b> <b>Sector Activities Summary FY2013 Q2</b> Reporting January 1, 2013 through March 31, 2013				
Sector	Work Order Type			
	Administrative Work Orders		Long Term Work Orders	
	Active	Pending	Active	Pending
Energy	0	0	5	3
Multi-Disciplinary	0	0	1	0
Water Resources	0	0	0	0
Transportation	0	0	3	0
Vertical Structures	0	0	0	0
Technical Services and Support	3	0	4	1

All the work initiated during the second quarter fell under the Administrative work order heading. A summary of the progress of each work order is shown in Table 4.3. A listing of FY2013 Q2 work orders can be found on the Work Order Status table included in Appendix A.

<b>Table 4.3</b> <b>Active FY2013 Q2 Work Order Summary</b> Reporting January 1, 2013 through March 31, 2013		
Work Order Number	Work Order Title	Summary of Work Completed FY2013 Q2
<b>WO-A: Administrative Work Orders<sup>(1)</sup></b>		
WO-A-0088	Regak Bridge QA	Tetra Tech AESP QA engineer accompanied the Louis Berger Group team to the Uruzgan province for a warranty inspection of the Regak Bridge in the Shahidi Hassas district. Memo of findings submitted on January 21, 2013. Work order completed during the quarter.
WO-A-0089	Salang Tunnel Substation Presentation	On January 30, 2013 USAID requested Tetra Tech AESP to create and present a presentation on the Salang Tunnel SS for the MoPW. Tetra Tech AESP engineers produced the slides but due to the changes in the Salang Tunnel SS design and some further engineering studies on the SS it was postponed.
WO-A-0090	Tarahkil Fire Suppression Component Analysis	Fire suppression system at Tarahkil assessment to report short and long term repairs. Report work of findings underway.
<b>WO-LT: Long Term Work Orders<sup>(2)</sup></b>		
WO-LT-0006	Sardar Girls High School (SGHGS) Utility Construction Documents	Assisted at meetings, provided onsite QA oversight for construction, and responded to RFIs from the construction contractor.
WO-LT-0009	Amendment 1 PRT Support Khost Bridge Final Design	Awaiting instructions from USAID.
WO-LT-0009 AMD 2	Bamyan Dam Sites Pre-Feasibility Study	Awaiting instructions from USAID.
WO-LT-0033 AMD 2/AMD3	USAID/OAA Claims Assistance	Continued review of claims for OAA.
WO-LT-0042	Afghan Women Internship Program	2013 Interns selected. The interns spent time in each of the Tetra Tech AESP departments to become acquainted with Tetra Tech AESP engineers and projects.
WO-LT-0048	Engineering Study for 220kV Transmission Line from Dasht-E-Barchi to Kandahar	AMD 3 – Work continued on creation of technical section (Vol. 2) for 220kV transmission line – Arghandi to Qarabagh and substations located at Sayedabad, Ghazni City, and Qarabagh. AMD 4 - On Hold until AMD 3 technical sections are approved by USAID and DABS.
WO-LT-0054	Reactive Power Compensation for PK to Chimtala	Work order closed.
WO-LT-0059	NEPS System Protective Relay Coordination Studies	Data gathering and site visits commenced. Two monthly reports submitted.



<b>Table 4.3</b> <b>Active FY2013 Q2 Work Order Summary</b> Reporting January 1, 2013 through March 31, 2013		
Work Order Number	Work Order Title	Summary of Work Completed FY2013 Q2
WO-LT-0063	Salang Tunnel SS Technical Sections	Work on final deliverables submitted. USAID requesting a double tap at site. Scope of Work (SOW) AMD 2 to explore, determine design and costs underway.
WO-LT-0065	Media Assistance	Gardez Khost Road video completed. Faizabad Airport video work underway.
WO-LT-0066	Training and Support	Training materials development. Exploring addition training available through Tetra Tech IP3.
WO-LT-0067	GK Road Value Engineering	Workshop held March 7, 2013. Summary report work underway. Bridge design and scheduled submitted to USAID. AMD 1 SOW development underway to provide scheduling and capacity building to MECC.
WO-LT-0068	Nangarhar & Hydro-Load & System Studies	Final report submitted. Work order closed during the quarter.

**Notes** <sup>(#)</sup>:

- (1) Work Orders with anticipated level of effort of 18-business days or less
- (2) Work Orders that are planned to equal more than 18-business days

## 5.0 Pending Work Orders

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### 5.1.1 Energy

#### 5.1.1.1 *WO-LT-0061 NEPS Connections to Customers*

The original objective of this requested SOW was to develop technical documents in sufficient detail for engineering. The EPC contractor would continue the design and installation of the work to connect nearby customers to the proposed transmission line. On February 21, 2013, USAID reduced this to only include Ghazni City. Since the AMD 3, REV 7 of WO-LT-0048 includes the 20kV and 400V distribution, this work order may be eliminated through better definition in WO-LT-0048. Tetra Tech AESP is awaiting NTP.

#### 5.1.1.2 *WO-LT-0062 KHPP Onsite QA Technical Review*

The objective of this work order was to provide engineering support services for the Kajaki Dam Turbine Unit 2 installation. The prime contract for the Unit 2 work and related Unit 2 projects is currently being executed by Black and Veatch for USAID. SOW and rough order of magnitude (ROM) submitted on October 31, 2012, for consideration. Revisions requested by USAID, revised SOW and ROM submitted December 4, 2012 for consideration. USAID request the work order cancelled on February 3, 2013.

#### 5.1.1.3 *WO-LT-0064 Hisarshahi Industrial Park (HIP) SS Technical Sections*

The objective of this work order is to develop new technical documents to extend a T/L from the existing 110kV bus at Ghawchak (New Jalalabad) SS to a new SS in Rodat District, Nangarhar Province. The new SS would provide electric power from DABS to the HIP and other nearby customers.

In late March, USAID provided new direction for WO-LT-0068, requesting a revised SOW and ROM cost estimate.

#### 5.1.1.4 *WO-LT-0066 Student Video Competition*

The objective of this work is to support a proposed student video competition designed to illustrate the impact of USAID infrastructure investments from an Afghan perspective. Scope of work is under development in coordination with USAID.

## 6.0 Financial

Obligated funding during FY2013 Q2 remained unchanged.

### 6.1 Invoices, Projected Burn Rates, and Reach Back Usage

Table 5.1 Tetra Tech AESP Expenditures and Burn Rate		
<b>Cumulative Expenditures through December 31, 2012</b>		
January 2013		
February 2013		
March 2013 (Forecast)		
Total FY2013 Q2 Expenditures		
<b>Cumulative Expenditures through March 31, 2013 (Forecast)</b>		
<b>Current Estimated Average Burn Rate per Month</b>		

### 6.2 Contract/Task Order Issues

*Status of Obligated Funds:* Based on the current billing and projected burn rate, the [REDACTED] in Obligated Funding will be exhausted in August 2013.

*Level of Effort Summary:* As of March 31, 2013, 8,700 reachback workdays and 40,074 in-country workdays for a total 48,774 workdays were expended.

## 7.0 Performance Indicators

Outlined in the the Tetra Tech AESP Task Order, is a requirement to build the capacity of the local staff and support USAID's effort for gender equality in the work environment. Quarter 2 included events to support USAID's mission here in Afghanistan. Under gender equality, Tetra Tech AESP hired a graduate from its own female engineering internship program. Under capacity building, a migration of responsibilities to the newly established middle management team was accomplished. Tetra Tech AESP continues to provide training opportunities to the entire program's LN staff, from English and self-paced computer courses to technical training for the engineering and professional staff.

### 7.1 Second Quarter Experience

As referenced in Section 2.3 Local National Staffing, [REDACTED] was hired as a junior civil engineer. She outlines her experience in the paragraphs that follow.

- **Technical Services**

As Tetra Tech is a multitask company for providing engineering support and as a consultant for USAID. Tetra Tech employs engineers from variety of engineering fields. Tetra Tech is a company that is always prepared for any engineering issues to consult and assist, and provide nonpartisan resolution to confusion that occurs during the construction. In my view, any construction project needs a nonpartisan company to assist the owner and contractor to complete their job appropriately and meet required standards. Tetra Tech AESP offers to USAID engineers with expertise in Water Supply/Water Sanitation, Transportation, Structural, and Electrical/Energy. Tetra Tech AESP takes part in supporting women engineers by providing a one year internship program. I, as a new employee of Tetra Tech AESP have gained many advantages by working here. I assist and collaborate on different projects. Below are the projects that I have worked on.



- **WO-LT-0042 Afghan Women Internship Program**

Engineering has different fields and Tetra Tech AESP by employing engineers with different backgrounds is a good choice for the internship program for engineering students. There are four 2013 interns and they attend two days a week. Two of them are civil engineers, one is an architect and the other one is a geologist. Tetra Tech AESP provides resourceful engineers to the internship program. Although, they only have been in the program a few months basic engineering and working skills show improvement. I was involved in the introduction to CAD 2010 basics and demonstrated using the program.

- **WO-LT-0006 Sardar Girls High School Utility Construction Documents**

This project was the one that I very familiar with, from the start of my internship period and now as an employee. I serve as the liaison for the SKGHS mistress and USAID. I follow the construction process, review shop drawings, and gaining experience as an engineering consultant for a construction site.

- **WO-LT-0067 GK Road Value Engineering**

Tetra Tech AESP was requested to provide Value Engineering (VE) services for the GK Road. As with other projects, I first become familiar with the project, provided technical support in the correcting and standardizing the GK Road CAD drawings. I also was involved in the team offsite workshop that was prepared by Tetra Tech AESP with USAID to share the ideas with the partners in this project and find solutions to implement and complete the project on time and on budget. The workshop outline was about the schedule, invoice, QA and QC of the GK Road project. I was involved mostly in the schedule part of the project.

- **WO-A-0090 Tarakhil Fire Suppression System Analysis**

This project is a recent project that I am working on. The purpose of the project for Tetra Tech AESP is to assess the fire suppression systems at Tarakhil Thermal Power Plant and produce short and long term solutions to remedy the system deficiencies. The exact problem of the system is the leakage of High-density polyethylene HDPE water pipes at their joints. This project is one of the first projects that I was involved from the start and is very interesting for me.

## 7.2 Capacity Building

This quarter saw the successful handover of responsibilities to the program's experienced LN staff. The newly appointed LN middle managers faced challenges, increased workload, and a sense of ownership in the Tetra Tech AESP program. Each manager shares below their first quarter experience with additional responsibilities.

- **[REDACTED], DCOP**

My experience as Deputy Chief of Party (DCOP) has provided me an opportunity to interact with a variety of staff who are in different positions within the same department, as well as staff from different departments. These interactions have increased my understanding about management as a career path. I believe that having the technical, as well as the management knowledge and skills will help me in achieving my goals and help me run the Tetra Tech AESP program.

- **[REDACTED] Administrative Manager**

As Administrative Manager, I now have more management responsibilities. I am frequently in contact with facilities staff within the Administration/Human Resources (HR) department. I conduct regular meetings with the facilities staff and HR administration manager and advise



the 15+ service staff on improving their work, listening to issues and finding solutions, providing recommendations the COP and DCOP for implementation

- [REDACTED], **IT Manager**

I am busy with IT Operations Support and conducting regular meeting with the management staff offering advice to improve the IT network, backup and network monitoring. I provide support; listen to staff about their IT issues; and work to find the right solution. I provide cross training and skills development to the staff that report to me.

- [REDACTED] **Technical Service Manager**

I oversee the local national engineering, administrative and service staff training opportunities. The external training part of the capacity-building program has been greatly appreciated with extensive satisfaction of the attendees on their particular skills improvement as well as their future career development.

Based on initial schedule provided for the external trainings on specific topics, below is the percent completed to date.

- CQM Trainings 90%
- Construction Health and Safety Training 78%
- Primavera Project Planner 75%
- Proposal Writing Training 23%

Construction management, Monitoring & Evaluation and other management trainings are being researched to provide to the staff.

Overall, the handover has gone smoothly. In the months to come, the expatriate staff will continue to mentor, support, and delegate more of the program to the middle management team.

Tetra Tech AESP continues a concerted effort to build individual capacity of the LN staff to prepare them for positions at government ministries, USAID, and other entities within Afghanistan.

## Appendix A

## Work Order Status

**ACTIVE AND PENDING WORK ORDER STATUS**

Afghanistan Engineering Support Program

IQC: Task Order 01 - EDH-I-00-08-00027-00

USAID Technical Office: USAID/Office of Economic Growth and Infrastructure (OEGI)

Revised March 31, 2013 (Reporting Thru March 22, 2013)

Work Order Number	Program Type	Description	Status	Estimated Cost (ROM)	In Country Cost to Date	Reach Back Cost to Date	Incurred Cost to Date
<b>WO-A: Administrative Work Orders</b>							
WO-A-0088	TS	Regak Bridge QA	Complete				
WO-A-0089	TS	Salang Tunnel Substation Presentation	Open				
WO-A-0090	TS	Tarakhil Fire Suppression Component Analysis	Open				
<b>WO-LT: Long Term Work Orders</b>							
WO-LT-0006	MULTI	SGHS Utility Construction Documents	Open				
WO-LT-0009	T	PRT Field Support	Open				
WO-LT-0009 AMD 2	T	PRT Field Support - Bamyan Dam Sites Pre-Feasibility Studies	Open				
WO-LT-0033 AMD 2	TS	USAID/OAA Claims Assistance	Open				
WO-LT-0033 AMD 3	TS	USAID/OAA Claims Assistance	Open				
WO-LT-0042	TS	Afghan Women Internship Program	Open				
WO-LT-0048	E	Engineering Study for 220kV Transmission Line from Dasht-E-Barchi to Kandahar	Open				
WO-LT-0054	E	Reactive Power Compensation for PK to Chintala	Complete				
WO-LT-0059	E	NEPS System Protective Relay Coordination Studies	Open				
WO-LT-0063	E	Salang Tunnel SS Technical Sections	Open				
WO-LT-0065	TS	Media Assistance	Open				
WO-LT-0066	TS	Training and Support	Open				
WO-LT-0067	T	GK Road Value Engineering	Open				
WO-LT-0068	E	Nangarhar Hydro Load & System Studies	Closed				
<b>Pending Work Orders</b>							
WO-LT-0061	E	NEPS Connections to Customers	Pending		\$0	\$0	\$0
WO-LT-0062	E	KHPP Onsite QA Technical Review	Pending		\$0	\$0	\$0
WO-LT-0064	E	Hisarshahi Industrial Park (HIP) SS Technical Sections	Pending		\$0	\$0	\$0
WO-LT-0069	TS	Student Video Competition	Pending	\$0	\$0	\$0	\$0

**Energy**  
**Water Resources**  
**Vertical Structures**  
**Transportation**  
**Water and Sanitation**  
**Multi-Disciplinary**  
**Technical Support**



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